NJDEP DIVISION OF WATERSHED MANAGEMENT

fact sheet

Fecal Coliform TMDLs

The pollutant of concern for these TMDLs is pathogens, the presence of which is indicated by elevated concentrations of fecal coliform bacteria. As stated in N.J.A.C. 7:9B-1.14(c) of the New Jersey Surface Water Quality Standards (SWQS), "Fecal coliform levels shall not exceed a geometric average of 200 CFU/100 ml nor should more than 10 percent of the total sample taken during any 30-day period exceed 400 CFU/100 ml in FW2 waters." Nonpoint sources and stormwater point sources are the primary contributors of fecal coliform loads in the listed streams. Storm events transport fecal coliform from sources such as geese, farms, and domestic pets to the receiving water. Nonpoint sources may also include steady-state inputs from sources such as failing sewage conveyance systems and failing or inappropriately located septic systems. Because the total point source contribution from facilities such as Publicly-Owned Treatment Works (POTWs) is an insignificant fraction of the total load, the fecal coliform TMDLs will not impose any change in current practices for POTWs and will not result in changes to existing effluent limits.

TMDL Calculations

Using ambient water quality monitoring data, summer and all season geometric means were determined for each impaired segment. Because there are two surface water quality criteria for FW2 streams, computations were necessary for both criteria and resulted in two values for percent reduction for each stream segment. The higher (more stringent) percent reduction value was selected as the TMDL. The TMDL identifies the required percent reduction necessary for each stream segment or group of segments to meet the fecal coliform Surface Water Quality Standards (SWQS). These load allocations act as targets around which a management strategy can be developed.

Implementation

Management strategies are designed to eliminate or reduce various fecal coliform sources. Each management strategy has one or more entities that can take lead responsibility for implementation of the recommendations. Various funding sources are available to assist in accomplishing the management strategies. The Department will address the sources of impairment through systematic source trackdown, matching strategies with sources, selecting responsible entities and aligning available resources to effect implementation. The implementation phase is a coordinated effort between the NJDEP, the municipal and county government, and the watershed community.

Source Assessment

When data was available load duration curves were used to help differentiate between a steady and episodic source loading. River Assessments and visual surveys were performed by the New Jersey Watershed Ambassadors for every impaired stream segment. This data was used in conjunction with source information gathered from the local partners and combined with evaluation of aerial photography to determine potential sources of fecal coliform.

Trackdown Monitoring

Each segment was also evaluated to determine if additional monitoring was necessary to inform management strategy development. The two main types of monitoring that are suggested in the document were fecal coliform sampling and microbial source trackdown. Fecal coliform sampling is recommended to confirm an impairment or in cases where the impaired streamshed is large, making it necessary to geographically isolate the source. Microbial source trackdown is recommended in stream segments where it was important to differentiate between human and animal sources or to isolate specific species in order to concentrate efforts on eliminating the most significant sources.

What You Can Do

CITIZEN

- Clean up after your pets
- Avoid feeding waterfowl
- Maintain your septic system

MUNICIPAL OFFICIALS

- Adopt and enforce Pet Waste and wildlife feeding Ordinances
- Implement measures for Stormwater Regulations

AGRICULTURAL AND RELATED LANDOWNERS

- Develop and implement Conservation Management Plans with technical and financial assistance available through:
  - Environmental Quality Incentive Program (EQIP)
  - Conservation Reserve Program (CRP)
  - Soil & Water Conservation Cost-Sharing Program
  - State Conservation Cost Share Program (SCCSP)